# Sciences (US) Inc.

# DWAYNE R. J. MOORE, Ph.D.

# Senior Vice President and Senior Scientist

41 Campus Drive, Suite 202 New Gloucester, Maine. 04260

Ph: 207-926-1065 Fax: 207-926-1067

Dr. Dwayne Moore has a B.Sc. in Biology from the University of Western Ontario, and a M.Sc. and Ph.D. in wetland community ecology from the University of Ottawa. After graduating, he worked for six years at Environment Canada, the first two years developing environmental quality guidelines for industrial chemicals, and the last four years conducting ecological risk assessments for priority substances in Canada. He was with the Cadmus Group for seven and one half years, first as a Senior Associate and then as a Principal. Dr. Moore joined Intrinsik Environmental, Inc. as a Senior Scientist and Vice President in March, 2004.

Dr. Moore has considerable expertise in ecological risk assessment, wildlife exposure modeling, development of environmental quality guidelines and criteria, community ecology, statistics, uncertainty analysis, and analysis of toxicity data. Since becoming a consultant in 1996, Dr. Moore has managed hundreds of projects for Canadian, U.S. and international clients in government and industry and participated in many others. He led the development of probabilistic exposure and risk models for birds exposed to granular and flowable pesticides. Dr. Moore and his team have completed numerous refined aquatic and/or wildlife risk assessments for pesticides including, for example, 2,4-D, aldicarb, atrazine, bifenthrin, brodifacoum, chlorpyrifos, carbofuran, carbosulfan, dimethoate, diphacinone, glufosinate, linuron and malathion. Dr. Moore has led or is currently leading assessments being conducted for threatened and endangered species in the United States for a variety of pesticides. Previously, Dr. Moore led the ecological risk assessment for the Housatonic River site in western Massachusetts on behalf of the US Environmental Protection Agency (EPA). The major focus for the Housatonic River site was risks to aquatic life and wildlife exposed to PCBs, dioxins and furans in the sediments. Dr. Moore also co-led the ecological risk assessment for the Calcasieu Estuary in Louisiana on behalf of the US EPA. This site had a wide array of contaminants in sediment and water including PCBs, dioxins, furans, lead, mercury, PAHs and solvents. Dr. Moore has participated in numerous other contaminated site risk assessments including Anniston, AL, Oak Ridge, TN, Sudbury, ON and Teck Cominco, BC.

# **EDUCATION**

1990 Ph.D., Wetland Community Ecology, University of Ottawa, Ottawa, Ontario. 1985 M.Sc., Wetland Community Ecology, University of Ottawa, Ottawa, Ontario. 1983 B.Sc. Plant Sciences, Honours, University of Western Ontario, London, Ontario (Awarded Departmental Gold Medal in 1983)

## **AREAS OF SCIENTIFIC INTEREST**

- **Ecological Risk Assessment**
- Probabilistic Risk Assessment
- **Pesticides**
- **Contaminated Sites**

- **Environmental Quality Guidelines and Criteria**
- Exposure Modeling, Ecotoxicology, Uncertainty **Analysis and Statistics**
- Threatened and Endangered Species

### **EMPLOYMENT HISTORY**

2004-Present Intrinsik Environmental Sciences, New Gloucester, Maine (formerly operating as Cantox Environmental Inc.)

**Senior Vice President and Senior Scientist** 

Company and project management; lead and participate in ecological risk assessments that predict or evaluate the potential impacts of industrial chemicals and pesticides on aquatic and terrestrial ecosystems; develop environmental quality guidelines and criteria; teach courses; litigation support.

1996-2003 The Cadmus Group Inc., Ottawa, Ontario

Senior Associate

**Environment Canada, Gatineau, Quebec** 1989-1996

PBN1294



Water Quality Branch (1989-1991); Commercial Chemicals Evaluation Branch (1991-1996)

#### **PROFESSIONAL BACKGROUND**

Co-chair, SETAC Pellston Workshop on the Use of Uncertainty Analysis in Ecological Risk Assessment (August, 1995)

Co-editor, "Uncertainty Analysis in Ecological Risk Assessment" (1998, SETAC Press)

Editorial Board, Environmental Toxicology and Chemistry (2000 to 2003)

Editorial Board, Human and Ecological Risk Assessment (1995 to 2004)

Member, Society of Environmental Toxicology and Chemistry (1989 to Present)

Invited Participant, SETAC Pellston Workshops on Problem Formulation in Ecological Risk Assessment (April, 2010), Re-evaluating Water Quality Criteria (July, 1998), Ecological Risk Assessments Involving Multiple Stressors (September, 1997)

Invited Speaker, U.S. ACE/U.S. EPA/SMWG Joint Sediment Conference (October, 2004)

Peer Reviewer, Ecological Risk Assessment for the Hudson River (April, 2000)

Steering Committee Member for SETAC Pellston Workshop on Probabilistic Risk Assessments of Pesticides (February, 2002)

Steering Committee Member for SETAC Pellston Workshop on Designing a Decision Support System for Ecological Risk Assessment (August, 1994)

US EPA FIFRA Scientific Advisory Panel Member (1999, 2000, 2004)

US EPA Science Advisory Board Member (2006, 2008)

Member of CropLife America Ecological Risk Assessment Committee (2009 to present)

Member of CropLife America Ecotoxicology Work Group (2009 to present)

Invited Panel Member and Guest Speaker at CropLife America Science Forum on Uncertainty Analysis (2013)

Invited Panel Member and Guest Speaker at CropLife America Science Forum on Population Modeling (2014)

#### SELECTED ACHIEVEMENTS

- Currently Co-leading National Endangered Species Assessment for Chlorpyrifos for Dow AgroSciences and Participating in the National Endangered Species Assessments for Malathion for FMC Corporation and Diazinon for Adama.
- Led Aquatic Risk Assessment for Imidacloprid for Bayer CropScience and Currently Leading Aquatic Risk Assessment for Clothianidin for Bayer CropScience and Valent.
- Recently Provided Litigation Support for Neonicotinoid Pesticides for Bayer Cropscience, Syngenta and Valent.
- Recently Provided Litigation Support for a Pesticide Registrant in Florida.
- Recently Provided Litigation Support for Cheminova for risks of Malathion and Dimethoate to Endangered Pacific Salmon Populations.
- Recently Led FIFRA Avian Risk Assessment for Chlorpyrifos for Dow AgroSciences.
- Recently Led Development of a Level of Concern for Aquatic Biota Exposed to Atrazine on Behalf of Syngenta.
- Co-leading FIFRA Ecological Risk Assessment and National Endangered Species Assessment for Glufosinate for Bayer CropScience.
- Leading Ecological Risk Assessment for Application of a Rodenticide to the Farallon Islands on Behalf of Island Conservation.
- Co-Led Regional Ecological Risk Assessment and Regional Endangered Species Assessment for New 2,4-D
  Formulation for Dow AgroSciences.
- Developed and Evaluated Model Performance of an Avian Risk Assessment Model for Seed Treatment Pesticides for Monsanto.
- Provided Litigation Support for Dow AgroSciences for Risks of Chlorpyrifos to Endangered Pacific salmon Populations.
- Led Risks of Pesticide Mixtures Project for CropLife America.



- Led Canadian Refined Ecological Risk Assessment for Malathion for Cheminova.
- Led Refined Avian Risk Assessment for Carbofuran and Carbosulfan Use in Colombia and Ecuador for FMC Corporation.
- Led Development of Generic Problem Formulation for Assessments of Pesticide Risks to the Endangered California Red-legged Frog on Behalf of CropLife America.
- Led Probabilistic Ecological Risk Assessment for Chlorpyrifos for Pest Management Regulatory Agency in Canada.
- Led and Co-Authored Ecological Risk Assessment for Aldicarb for Bayer CropScience.
- Developed and Evaluated Model Performance of an Avian Risk Assessment Model for Granular Pesticides for Bayer CropScience.
- Provided Litigation Support for Chinook Pipelines for Risks of an Accidental Tapwater Release to Pincher Creek, Alberta.
- Led Avian Risk Assessment for Carbofuran for FMC.
- Developed and Evaluated Model Performance of an Avian Risk Assessment Model for Flowable Pesticides for FMC.
- Taught Numerous Statistics Courses to Groups at Environment Canada, U.S. EPA, Pesticide Companies and Many Others.
- Led and Co-Authored Guidance Manual for Development of Ideal Performance Standards for Pesticides in Canada.
- Led and Co-Authored Development of Ideal Performance Standards for Protection of Aquatic Life for 8 Pesticides on Behalf of Environment Canada.
- Authored Guidance Chapter on Performance of Probabilistic Risk Assessments for Estimating Risk to Human Health at Contaminated Sites on Behalf of Health Canada.
- Led Ecological Risk Assessment for the Housatonic River, Massachusetts for U.S. Environmental Protection Agency.
- Evaluated Model Performance of 6 QSAR Models for Environment Canada.
- Determined Inter and Intra-laboratory Variability of Whole Effluent Toxicity Test Results.
- Co-led Ecological Risk Assessment for the Calcasieu Estuary, Louisiana for U.S. Environmental Protection Agency.
- Led Development of Ambient Water Quality Criterion for Mercury for Water Environment Research Federation.
- Led Ecological Risk Assessment for East Fork Poplar Creek, Tennessee for U.S. Department of Energy.
- Co-led Project to Determine Factors Controlling Bioaccumulation of Mercury in Fish in the American Southeast for U.S. Environmental Protection Agency.
- Co-authored Guidance Manual on Probabilistic Risk Assessment for the American Chemistry Council (ACC) and its European Equivalent (CEFIC).
- Co-authored Guidance Manual for Assessments of New Substances, with Mark Bonnell and Scott Teed, for Environment Canada.
- Co-authored Canadian Water Quality Guideline Documents for Various Compounds.
- Led and Co-authored Guidance Manual for Ecological Risk Assessments of Priority Substances under the Canadian Environmental Protection Act.
- Co-authored Protocol for Development of Water Quality Guidelines for the Protection of Freshwater Aquatic Life in Canada.



# **PUBLICATIONS**

#### Воокѕ

**Moore, D.R.J.**, W.J. Warren-Hicks, S. Qian, A. Fairbrother, T. Aldenberg, T. Barry, R. Luttik and H.-T Ratte. 2010. Uncertainty analysis using classical and Bayesian hierarchical models. In Application of Uncertainty Analysis to Ecological Risks of Pesticides, Warren-Hicks, W.J. and A.V. Hart (eds.). SETAC Press, Pensacola, FL. pp. 123-141.

Ferson, S., **D.R.J. Moore,** P.J. Van den Brink, T.L. Estes, K. Gallagher, R. O'Connor and F. Verdonck. 2010. Bounding uncertainty analyses. In Application of Uncertainty Analysis to Ecological Risks of Pesticides, Warren-Hicks, W.J. and A.V. Hart (eds.). SETAC Press, Pensacola, FL. pp. 89-122.

Joermann, G., T.W. La Point, L.A. Burns, J.P. Carbone, P.D. Delorme, S. Ferson, **D.R.J. Moore** and T.P. Traas. 2010. How to detect and avoid pitfalls, traps, and swindles. In Application of Uncertainty Analysis to Ecological Risks of Pesticides, Warren-Hicks, W.J. and A.V. Hart (eds.). SETAC Press, Pensacola, FL. pp. 155-163.

Hart, A.V., T. Barry, D.L. Fischer, J.M. Giddings, P. Hendley, G. Joermann, R. Luttik, **D.R.J. Moore**, M.C. Newman, E. Odenkirchen and J.L. Shaw. 2010. Conclusions. In Application of Uncertainty Analysis to Ecological Risks of Pesticides, Warren-Hicks, W.J. and A.V. Hart (eds.). SETAC Press, Pensacola, FL. pp. 165-175.

**Moore, D.R.J.**, C.G. Delos, J.M. Giddings, D.J. Hansen, W.G. Landis, E.R. Mancini, B.L. McGee, K.R. Soloman, J.E. Toll, W. Wuerthele and W.J. Adams, 2003. Risk characterization. In Re-evaluation of the State of the Science for Water-Quality Criteria Development, Reiley, M.C., W.A. Stubblefield, W.J. Adams, D.M. Di Toro, P.V. Hodson, R.J. Erickson and F.J. Keating (eds.). SETAC Press, Pensacola, FL. pp. 119-142.

**Moore, D.R.J.** and S.M. Bartell. 2000. Estimating ecological risks of multiple stressors: Advanced methods and difficult issues. In Multiple Stressors in Ecological Risk and Impact Assessment: Approaches to Risk Estimation, Foran, J. and S. Ferenc (eds.). SETAC Press, Pensacola, FL. pp. 117-168.

Warren-Hicks, W.J. and **D.R.J. Moore** (eds.). 1998. Uncertainty Analysis in Ecological Risk Assessment. SETAC Press, Pensacola, FL. 277 p.

Landis, W.G., **D.R.J. Moore** and S. Norton. 1998. Ecological risk assessment: Looking in, looking out. In Pollution Risk Assessment and Management: A Structured Approach, Douben, P.E.T. (ed.). John Wiley and Sons, Chichester, U.K. pp. 273-309.

Biddinger, G., D. Gess, **D.R.J. Moore,** T. Natan, C.L. van Leeuwen and D. Winkelman. 1998. The problem formulation phase. In Development of an Ecological Risk Assessment Modelling System, Reinert, K. and S. Bartell (eds.). SETAC Press, Pensacola, FL. pp. 7-14.

**Moore, D.R.J.**, R.L. Breton, P. Doyle, B.J. Elliott, K. Taylor and W.M. Windle. 1997. Ecological risk assessments of priority substances in Canada: Identification and resolution of difficult issues. In Environmental Toxicology and Risk Assessment: Modeling and Risk Assessment (6th Volume), ASTM STP 1317, Dwyer, F.J., T.R. Doane and M.L. Hinman (eds.). American Society for Testing and Materials, Philadelphia, PA. pp. 130-147.

**Moore, D.R.J.** and P.A. Keddy. 1989. Conservation of infertile wetlands: Planning and management priorities. In Wetlands: Inertia or Momentum? Federation of Ontario Naturalists, Don Mills, ON. pp. 391-398.

#### **JOURNALS AND PERIODICALS**

**Moore, D.R.J.**, R. Berger and C. McGowan. 2015. The treatment, analysis and communication of uncertainty in the environmental risk assessment of aquatic organisms. Canadian Technical Report of Fisheries and Aquatic Sciences 3146.

Knopper, L.D., R.L. Breton, **D.R.J. Moore**, T. Hall and L. Bowers. 2015. The challenge: How can we improve the quality of ecotoxicology research to increase relevance and use in regulatory decision making? Business perspective. Environmental Toxicology and Chemistry 35(1):18-19.

Fairbrother, A., B. Hartl, B.K. Hope, J.J. Jenkins, Y.-W. Li and **D.R.J. Moore**. 2015. Risk management decisions for pesticides and threatened and endangered species: The role of uncertainty analysis. Human and Ecological Risk Assessment DOI: 10.1080/10807039.2015.1089400.

**Moore, D.R.J.**, R.L. Breton, T.R. DeLong, S. Ferson, J.P. Lortie, D.B. MacDonald, R. McGrath, A.J Pawlisz, S.C. Svirsky, R.S. Teed, R.P. Thompson, T. Tucker and M. Whitfield Aslund. 2015. Ecological risk assessment for mink and short-tailed



shrew exposed to PCBs, dioxins and furans in the Housatonic River area. Integrated Environmental Assessment and Management 12(1):174-184.

Forbes, V.E., R. Brain, D. Edwards, N. Galic, T. Hall, J. Honegger, C. Meyer, **D.R.J. Moore**, D. Nacci, R. Pastorok, T.G Preuss, S.F. Railsback, C. Salice, J. Sibly, B. Tenhumberg, P. Thorbek and M. Wang III. 2015. Assessing pesticide risks to threatened and endangered species using population models: Findings and recommendations from the CropLife America Science Forum. Integrated Environmental Assessment and Management 11(3):348-354.

Brain, R.A., R.S. Teed, J. Bang, P. Thorbek, J. Perine, N. Peranginangin, M. Kim, T. Valenti, W. Chen, R.L. Breton, S.I. Rodney and **D.R.J. Moore**. 2015. Risk assessment considerations with regard to the potential impacts of pesticides on endangered species. Integrated Environmental Assessment and Management 11(1):102-117.

**Moore, D.R.J.**, R.S. Teed, C.D. Greer, K.R. Solomon and J.P. Giesy. 2014. Refined avian risk assessment for chlorpyrifos. Reviews of Environmental Contamination and Toxicology 231:163-217.

Giesy, J.P., K.R. Solomon, D. Mackay, J.M. Giddings, M. Williams, **D.R.J. Moore,** J. Purdy and C. Cutler. 2014. Ecological risk assessment for chlorpyrifos in terrestrial and aquatic systems in the United States – overview and conclusions. Reviews of Environmental Contamination and Toxicology 231:1-12

Rodney, S.I., R.S. Teed and **D.R.J. Moore**. 2013. Estimating the toxicity of pesticide mixtures to aquatic organisms: A review. Human and Ecological Risk Assessment 19(6):1557-1575.

**Moore, D.R.J.** and R.S. Teed. 2013. Risks of carbamate and organophosphate pesticide mixtures to salmon in the Pacific Northwest. Integrated Environmental Assessment and Management 9(1):70-78.

MacDonald, D.D., **D.R.J. Moore**, C.G. Ingersoll, D.E. Smorong, R.S. Carr, R. Gouguet, D. Charters, D. Wilson, T. Harris, J. Rauscher, S. Roddy and J. Meyer. 2011. Baseline ecological risk assessment of the Calcasieu Estuary, Louisiana: 1. Overview and problem formulation. Archives of Environmental Contamination and Toxicology 61:1-13.

**Moore, D.R.J.**, R.S. Teed, S.I. Rodney, R.P. Thompson and D.L. Fischer. 2010. Refined avian risk assessment for aldicarb in the United States. Integrated Environmental Assessment and Management 6(1):83-101.

**Moore, D.R.J.**, R.P. Thompson, S.I. Rodney, D.L. Fischer, T. Ramanaryanan and T. Hall. 2010. Refined aquatic risk assessment for aldicarb in the United States. Integrated Environmental Assessment and Management 6(1):102-118.

**Moore, D.R.J.,** D.L. Fischer, R.S. Teed and S.I. Rodney. 2010. A probabilistic risk assessment model for birds exposed to granular pesticides. Integrated Environmental Assessment and Management 6(2):260-272.

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Bursian, S.J., C. Sharma, R.J. Aulerich, B. Yamini, R.R. Mitchell, C.C. Orazio, **D.R.J. Moore**, S. Svirsky and D.E. Tillitt. 2006. Dietary exposure of mink (*Mustela vison*) to fish from the Housatonic River, Berkshire County, Massachusetts, USA: Effects on reproduction, kit growth and survival. Environmental Toxicology and Chemistry 25(6):1533-1540.

Bursian, S.J., C. Sharma, R.J. Aulerich, B. Yamini, R.R. Mitchell, K.J. Beckett, C.C. Orazio, **D.R.J. Moore,** S. Svirsky and D.E. Tillitt. 2006. Dietary exposure of mink (*Mustela vison*) to fish from the Housatonic River, Berkshire County, MA, USA: Effects on organ weights and histology and hepatic concentrations of polychlorinated biphenyls and 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalents. Environmental Toxicology and Chemistry 25(6):1541-1550.

Shore, R.F., D.R. Crocker, H.R. Akcakaya, R.S. Bennett, P.F. Chapman, M. Clook, M. Crane, I.C. Dewhurst, P.J. Edwards, A. Fairbrother, S. Ferson, D. Fischer, A.D.M. Hart, M. Holmes, M.J. Hooper, M. Lavine, A. Leopold, R. Luttik, P. Mineau, **D.R.J. Moore,** S.R. Mortenson, D.G. Noble, R.J. O'Connor, W. Roelofs, R.M. Sibley, G.C. Smith, M. Spendiff, T.A. Springer, H.M. Thompson and C. Topping. 2005. Case study part 1: How to calculate appropriate deterministic long-term toxicity to exposure ratios (TERs) for birds and mammals. Ecotoxicology 14:877-893.

Roelofs, W., D.R. Crocker, R.F. Shore, **D.R.J. Moore**, G.C. Smith, H.R. Akcakaya, R.S. Bennett, P.F. Chapman M. Clook, M. Crane, I.C. Dewhurst, P.J. Edwards, A. Fairbrother, S. Ferson, D. Fischer, A.D.M. Hart, M. Holmes, M.J. Hooper, M. Lavine, A. Leopold, R. Luttik, P. Mineau, S.R. Mortenson, D.G. Noble, R.J. O'Connor, R.M. Sibley, M. Spendiff, T.A. Springer, H.M. Thompson and C Topping. 2005. Case study part 2: Probabilistic modelling of long-term effects of pesticides on individual breeding success in birds and mammals. Ecotoxicology 14:895-923.



**Moore, D.R.J.**, R.S. Teed and G.M. Richardson. 2003. Derivation of an ambient water quality criterion for mercury: Taking account of site-specific conditions. Environmental Toxicology and Chemistry 22(12):3069-3080.

Crane, M., P. Whitehouse, S. Comber, C. Watts, J. Giddings, **D.R.J. Moore** and E. Grist. 2003. Evaluation of probabilistic risk assessment of pesticides in the UK: Chlorpyrifos use on top fruit. Pest Management Science 59(5):512-526.

**Moore, D.R.J.**, R.L. Breton and D.B. MacDonald. 2003. A comparison of model performance for six QSAR packages that predict acute toxicity to fish. Environmental Toxicology and Chemistry 22(8):1799-1809.

Pasternak, J.P., **D.R.J. Moore** and R.S. Teed. 2003. An ecological risk assessment of inorganic chloramines in surface water. Human and Ecological Risk Assessment 9(2):453-482.

Taylor, K.W., Caux, P.Y. and **D.R.J. Moore**. 2003. An ecological risk assessment of hexachlorobutadiene. Human and Ecological Risk Assessment 9(2):511-525.

Breton, R.L., R.S. Teed and **D.R.J. Moore**. An ecological risk assessment of phenol in the aquatic environment. Human and Ecological Risk Assessment 9(2):549-568.

Smith, G.C., A.D.M. Hart, M.D. Rose, R. MacArthur, A.S. Fernandes and **D.R.J. Moore**. 2002. Intake estimation of polychlorinated dibenzo-p-dioxins, dibenzofurans (PCDD/Fs) and polychlorinated biphenyls (PCBs) in salmon: The inclusion of uncertainty. Food Additives and Contaminants 19(8):70-778.

**Moore, D.R.J.** 2001. The Anna Karenina principle applied to ecological risk assessments of multiple stressors. Human and Ecological Risk Assessment 7(2):231-237.

Qian, S.S., W. Warren-Hicks, J. Keating, **D.R.J. Moore** and R.S. Teed. 2001. A predictive model of mercury fish tissue concentrations for the Southeastern United States. Environmental Science and Technology 35(5):941-947.

Moore, D.R.J., W.J. Warren-Hicks, B.R. Parkhurst, R.S. Teed, R.B. Baird, R. Berger, D.L. Denton and J.J. Pletl. 2000. Intraand inter-treatment variance in reference toxicant tests. Environmental Toxicology and Chemistry 19(1):105-112.

Warren-Hicks, W.J., Parkhurst, B.R., **D.R.J. Moore,** R.S. Teed, R.B. Baird, R. Berger, D.L. Denton and J.J. Pletl,. 2000. Assessment of whole effluent toxicity test variability: Partitioning sources of variability. Environmental Toxicology and Chemistry 19(1):94-104.

**Moore, D.R.J.**, B.E. Sample, G.W. Suter, B.R. Parkhurst and R.S. Teed. 1999. A probabilistic risk assessment of the effects of methyl mercury and PCBs on mink and kingfishers and East Fork Poplar Creek, Oak Ridge, Tennessee. Environmental Toxicology and Chemistry 18(12):2941-2953.

**Moore, D.R.J.**, B.E. Sample, G.W. Suter, B.R. Parkhurst and R.S. Teed. 1999. Risk-based decision making: The East Fork Poplar Creek case study. Environmental Toxicology and Chemistry 18(12):2954-2958.

**Moore, D.R.J.** 1998. The ecological component of ecological risk assessment: Lessons from a field experiment. Human and Ecological Risk Assessment 3(5):1-21.

**Moore, D.R.J.** and P.Y. Caux. 1997. Estimating low toxic effects. Environmental Toxicology and Chemistry 16(4):794-801.

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**Moore, D.R.J.**, R.L. Breton and K.M. Lloyd. 1997. The effects of hexachlorobenzene on mink in the Great Lakes area: An ecological risk assessment. Environmental Toxicology and Chemistry 16(5):1042-1050.

**Moore, D.R.J.** 1996. Using Monte Carlo analysis to quantify uncertainty in ecological risk assessment: Are we gilding the lily or bronzing the dandelion? Human and Ecological Risk Assessment 2(4):628-633.

Weiher, E., I.C. Wisheu, P.A. Keddy and **D.R.J. Moore**. 1996. Establishment, persistence, and management implications of experimental wetland plant communities. Wetlands 16(2):208-218.

**Moore, D.R.J.** and B.J. Elliott. 1996. Should uncertainty be quantified in regulatory programs that use human and ecological risk assessment as tools for decision-making? Human and Ecological Risk Assessment 2(1):3-14.

**Moore, D.R.J.** and Biddinger, G.R. 1995. The interaction between risk assessors and risk managers during the problem formulation phase. Environmental Toxicology and Chemistry 14(12):2013-2014.



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**Moore, D.R.J.**, R.A. Kent, M.P. Wong and A.R. Davis, 1992. Criteria or guidelines? Environmental Science and Technology 26:7-8.

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**Moore, D.R.J.** and P.A. Keddy. 1988. Regeneration in plant communities on environmental gradients: Effects of a water-depth gradient on the germination of lakeshore plants. Canadian Journal of Botany 66:548-552.

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#### **PRESENTATIONS**

**Moore, D.R.J.**, R.S. Teed, C.D. Greer and N.N. Poletika. 2015. A refined risk assessment for Kirtland's warbler potentially exposed to flowable chlorpyrifos in the United States. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

**Moore, D.R.J.** 2015. The tripartite experience in regulatory risk assessment: Reflections from over 20 years as a consultant. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

Teed, R.S., C. Greer and **D.R.J. Moore**. 2015. National endangered species assessment for chlorpyrifos: Refined terrestrial ecological risk assessment. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

Breton, R.L., M. Winchell, R.S. Teed, L. Padilla, G. Manning, S. Rodney, Y. Clemow, **D.R.J. Moore** and P. Whatling. 2015. A refined ecological risk assessment for the delta smelt potentially exposed to malathion in California. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

Teed, R.S., R.L. Breton, **D.R.J. Moore** and P. Whatling. 2015. National endangered species assessment for malathion: Refined aquatic and terrestrial ecological risk assessment. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

Breton, R.L., R.S. Teed, **D.R.J. Moore**, M. Winchell and L. Phelps. 2015. National endangered species assessment for diazinon: Screening-level ecological risk assessment. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

**Moore, D.R.J.**, R.S. Teed, C.D. Greer, T.B. Fredricks and L.J. Schuler. 2015. A probabilistic risk assessment model for bird species foraging in corn and soybean fields with different tillage practices. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.



Whitfield-Aslund, M., **D.R.J. Moore**, L. Ortego and S. McGee. 2015. Ecological risk assessment for aquatic invertebrates exposed to imidacloprid Part B: Effects metrics and risk characterization. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

Feken, M., T.M. Blickley, T. Carro, M. Christ, P. Edwards, T.B. Fredricks, K. Henry, M. Kern, S. McGee, **D.R.J. Moore**, S. Mortensen, S. Plautz, J. Staveley and F. Womack. 2015. Passerine dietary (LC50) test: Challenges and utility in deriving an acute endpoint for pesticide registration in the U.S. 36th Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake City, UT.

**Moore, D.R.J.**, R.S. Teed and N. Poletika. 2015. Terrestrial endangered species assessment for chlorpyrifos: Initial analyses and results. 250th American Chemical Society National Meeting, Boston, MA.

**Moore, D.R.J.**, R.S. Teed and N. Poletika. 2015. Endangered species assessment for chlorpyrifos co-occurrence and proximity analyses: Initial results. 250th American Chemical Society National Meeting, Boston, MA.

Teed, R.S., **D.R.J. Moore** and M. Winchell. 2015. Ecological risk assessment framework for endangered species assessments. 250th American Chemical Society National Meeting, Boston, MA.

Whitfield-Aslund, M., R.L. Breton, L. Padilla, R. Reiss, P. Whatling, M. Winchell, K. Wooding and **D.R.J. Moore**. 2015. Ecological risk assessment for Pacific salmon exposed to dimethoate in California. 250th American Chemical Society National Meeting, Boston, MA.

Knopper, L.D., R.L. Breton, **D.R.J. Moore**, A.T. Hall and L.M. Bowers. 2015. Effects characterization for aquatic invertebrates exposed to imidacloprid-Part A: A novel evaluation rubric to assess aquatic toxicity studies. SETAC Europe 25th Annual Meeting, Barcelona, Spain.

**Moore, D.R.J.**, L.D. Knopper, R.L. Breton, C.D. Greer, M. Whitfield-Aslund, A.T. Hall and L.M. Bowers. 2015. Effects characterization for aquatic invertebrates exposed to imidacloprid-Part B: Higher tier approaches. SETAC Europe 25th Annual Meeting, Barcelona, Spain.

**Moore, D.R.J.** 2015. A framework for endangered species assessments: Recommendations from a CropLife America workshop. Crop Life/Informa Workshop held April 23-24. Washington, D.C.

**Moore, D.R.J.** 2014. Uncertainty analysis methods for assessing risks of pesticides to endangered species. 35th Annual Society of Environmental Toxicology and Chemistry Conference, Vancouver, BC.

Pastorok, R.A., **D.R.J. Moore**, A.B. Parks, D.V. Preziosi and R.S. Teed. 2014. Using probabilistic population modeling to inform pesticide risk assessments and jeopardy determinations for endangered species. 35th Annual Society of Environmental Toxicology and Chemistry Conference, Vancouver, BC.

Knopper, L.D., R.L. Breton, **D.R.J. Moore**, A.T. Hall and L.M. Bowers. 2014. Use of a novel evaluation rubric to assess micro- and mesocosm ("cosm") studies for ecological risk assessments. 35th Annual Society of Environmental Toxicology and Chemistry Conference, Vancouver, BC.

Fredricks, T.B., T.M. Blickley, K. Brugger, T. Carro, M. Christ, P.J. Edwards, K.S. Henry, W.E. Hillwalker, S. McGee, M.E. Kern, **D.R.J. Moore**, S.R. Mortensen and J.P. Staveley. 2014. Passerine acute oral dose study update. 35th Annual Society of Environmental Toxicology and Chemistry Conference, Vancouver, BC.

Breton, R.L., **D.R.J. Moore**, Y. Clemow, G. Manning, P. Whatling and M. Winchell. 2014. A refined effects determination for Delta smelt potentially exposed to malathion. 35th Annual Society of Environmental Toxicology and Chemistry Conference, Vancouver, BC.

**Moore, D.R.J.** 2014. Are mixtures of pesticides in the aquatic environment as serious an issue as implied by monitoring studies? 245th American Chemical Society National Meeting, San Francisco, CA.

Breton, R.L., Y. Kara, S. Rodney, M. Winchell, T.L. Estes, J. Hanzas, R.S. Teed, **D.R.J. Moore** and P. Whatling. 2014. A refined effects determination for the California red-legged frog potentially exposed to malathion. 245th American Chemical Society National Meeting, San Francisco, CA.

Breton, R.L., Y. Kara, S. Rodney, T.L. Estes, J. Hanzas, R.S. Teed, **D.R.J. Moore** and P. Whatling. 2014. A refined effects determination for the California red-legged frog potentially exposed to dimethoate. 245th American Chemical Society National Meeting, San Francisco, CA.



**Moore, D.R.J.** 2014. Population modeling in ecological risk assessments of pesticides. CropLife America Science Forum: Population Modeling of Endangered Species, Washington, DC.

**Moore, D.R.J.** and M.F. Leggett. 2013. No more excuses: It is time to incorporate uncertainty analyses in pesticide risk assessments. 34th Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.

Giesy, J.P., C. Cutler, J.M. Giddings, D. Mackay, **D.R.J. Moore,** W. Williams, J. Purdy and K.R. Soloman. Ecological risk assessment for chlorpyrifos in terrestrial and aquatic systems in North America: Overview and conclusions. 244th American Chemical Society National Meeting, Indianapolis, IN.

**Moore, D.R.J.**, R.S. Teed, C.D. Greer, K.R. Solomon and J.P. Giesy. 2013. A refined avian risk assessment for agricultural uses of flowable chlorpyrifos in the United States. 244th American Chemical Society National Meeting, Indianapolis, IN.

**Moore, D.R.J.**, R.S. Teed, C.D. Greer, K.R. Solomon and J.P. Giesy. 2013. A refined avian risk assessment for agricultural uses of granular chlorpyrifos in the United States. 244th American Chemical Society National Meeting, Indianapolis, IN.

Poletika, N.N., **D.R.J. Moore** and J.M. Giddings. 2013. Chlorpyrifos agricultural use and the Endangered Species Act: Do refinements in ecological risk assessment address uncertainty? 244th American Chemical Society National Meeting, Indianapolis, IN.

**Moore, D.R.J.** and W.G. Landis. 2012. Just say no to NOELs. 33rd Annual Society of Environmental Toxicology and Chemistry Conference, Long Beach, CA.

Landis, W.G. and **D.R.J. Moore**. 2012. The curve is the measure of toxicity. 33rd Annual Society of Environmental Toxicology and Chemistry Conference, Long Beach, CA.

**Moore, D.R.J.** 2012. Uncertainty analysis in ecological risk assessments of pesticides. CropLife America Science Forum: The Uncertainty of Capturing Uncertainty, Washington, DC.

**Moore, D.R.J.,** K.J. Beckett and R.S. Teed. Risks of granular and flowable carbofuran to birds in Colombia. 2011. 32nd Annual Society of Environmental Toxicology and Chemistry Conference, Boston, MA.

Rodney, S., R.L. Breton, T.M. Wolf, P. Whatling, **D.R.J. Moore,** T.L. Estes and J. Hanzas. 2011. Development of models to predict pesticide spray drift deposition from aerial, airblast and groundspray applications. 32nd Annual Society of Environmental Toxicology and Chemistry Conference, Boston, MA.

**Moore, D.R.J.** and R.S. Teed. 2011. Risks of pesticide mixtures to salmon in the Pacific Northwest. 242nd American Chemical Society National Meeting, Denver, CO.

Teed, R.S., **D.R.J. Moore,** T. Hall, G. Sabbagh and R.L. Breton. 2011. An approach for the assessment of indirect effects to threatened and endangered terrestrial species exposed to herbicides: Glufosinate case study. 242nd American Chemical Society National Meeting, Denver, CO.

**Moore, D.R.J.** 2011. Do mixtures of pesticides pose a risk to salmonids in the Pacific Northwest? Crop Life/Informa Workshop held April 7-8. Washington, D.C.

**Moore, D.R.J.** 2010. Risks of pesticide mixtures to salmon in the Pacific Northwest. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Teed, R.S., **D.R.J. Moore,** T. Hall and R.L. Breton. 2010. An approach for assessment of indirect effects to threatened and endangered aquatic and terrestrial species exposed to herbicides: Glufosinate case study. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Estes, T.L., R.L. Breton, T.M. Wolf, P. Whatling, J. Schupner, J. Hanzas and **D.R.J. Moore**. 2010. Development of empirically-derived drift distributions to predict deposition of pesticides from ground spray applications. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Estes, T.L., R.L. Breton, T.M. Wolf, P. Whatling, J. Schupner, J. Hanzas and **D.R.J. Moore**. 2010. Development of empirically-derived drift distributions to predict deposition of pesticides from orchard airblast applications. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Estes, T.L., R.L. Breton, T.M. Wolf, P. Whatling, J. Schupner, J. Hanzas and **D.R.J. Moore**. 2010. Development of empirically-derived drift distributions to predict deposition of pesticides from aerial applications. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.



Teed, R.S. and **D.R.J. Moore**. 2010. Occurrence and toxicity of pesticide mixtures in California's Central Valley. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Breton, R.L., **D.R.J. Moore**, R.S. Teed, P. Whatling and J. Schupner. 2010. A refined effects determination for the California red-legged frog potentially exposed to dimethoate. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

Schuler, L.J., J.P. Wright, J.L. Honegger, J. Hanzas and **D.R.J. Moore**. 2010. Le Sueur River watershed aquatic plant assessment. 31st Annual Society of Environmental Toxicology and Chemistry Conference, Portland, OR.

**Moore, D.R.J.** 2010. Assessing risks from pesticide mixtures in surface waters. Crop Life/Informa Workshop held April 15-16. Washington, D.C.

**Moore, D.R.J.**, N.N. Poletika and R.L. Breton. 2009. Policy, process and technical issues facing the development of benchmarks in Canada and the United States. 30th Annual Society of Environmental Toxicology and Chemistry Conference, New Orleans, LA.

**Moore, D.R.J.** 2009. Use of advanced tools in assessment of risk. Crop Life/Informa Workshop held April 28-29. Washington, D.C.

**Moore, D.R.J.**, R.S. Teed and T.M. Delongchamp. 2008. A probabilistic exposure model for birds exposed to flowable pesticides. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

**Moore, D.R.J.**, R.S. Teed, T.M. Delongchamp, R.L. Breton, L.B. Best, L.W. Brewer, K.R. Solomon, D. Carlson, M. Maynard, M. Morelli and S. Nissen-Meyer. 2008. Estimating risk for birds exposed to flowable carbofuran in the United States. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

Brewer, L.W., J.M. Stafford, C.A. Redmond, L.B. Best, **D.R.J. Moore**, K.R. Soloman, D. Carlson, M. Maynard, M. Morelli and S. Nissen-Meyer. 2008. Mallard (*Anas platyrhynchos*) avoidance of flowable carbofuran relative to risk projections in avian pesticide risk assessment. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

Solomon, K.R., L.W. Brewer, J.M. Stafford, C.A. Redmond, L.B. Best, **D.R.J. Moore**, D. Carlson, M. Maynard, M. Morelli and S. Nissen-Meyer. 2008. Recovery rate of carbofuran-inhibited brain acetylcholinesterase in birds: A risk assessment issue. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

Stafford, J.M., L.W. Brewer, C.A. Redmond, L.B. Best, **D.R.J. Moore**, K.R. Soloman, D. Carlson, M. Maynard, M. Morelli and S. Nissen-Meyer. 2008. Further evaluation of the use of the median lethal dose (LD50) as the lethality threshold in avian pesticide risk assessment. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

Rodney, S.I., **D.R.J. Moore**, R.S. Teed, and M.J. Demers. 2008. An Excel-based tool for fitting and evaluating species sensitivity distributions. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

Hall, T., C. Thomas, J. Honegger, J. Giddings and **D.R.J. Moore**. 2008. Endangered species indirect effects: Screening level assessments and refined ecological assessments. 29th Annual Society of Environmental Toxicology and Chemistry Conference, Tampa, FL.

**Moore, D.R.J.** 2008. Ecological risk assessment: Protection goals. Crop Life/Informa Workshop held April 8-9. Washington, D.C.

**Moore, D.R.J.** 2008. LiquidPARAM: A refined probabilistic model for estimating risk to birds exposed to flowable pesticides. Invited speaker to March 19 SETAC Laurentian Meeting, Ottawa, ON.

**Moore, D.R.J.** 2008. LiquidPARAM: A model developed in support of the avian risk assessment for liquid carbofuran. Presented at the U.S. EPA Scientific Advisory Panel Meeting to Consider the Scientific Issues Associated With EPA's Notice of Intent to Cancel Carbofuran, February 5-8, 2008. Washington, D.C.

**Moore, D.R.J.**, D.L. Fischer, T.S. Ramanarayanan, R.P. Thompson and S.I. Rodney. 2006. Estimating risk for aquatic life exposed to aldicarb in the United States. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.



**Moore, D.R.J.,** D.L. Fischer, R.S. Teed, R.P. Thompson and S.I. Rodney. 2006. Estimating risk for birds exposed to aldicarb in the United States. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, OC.

**Moore, D.R.J.**, D.L. Fischer, R.S. Teed and S.I. Rodney. 2006. Estimating risk for birds exposed to granular pesticides: A probabilistic exposure model. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

**Moore, D.R.J.**, D.L. Fischer, R.S. Teed and S.I. Rodney. 2006. A probabilistic exposure model for estimating risk of birds exposed to granular pesticides: Sensitivity analysis and model performance. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

**Moore, D.R.J.,** D.L. Fischer, R.S. Teed and S.I. Rodney. 2006. A probabilistic exposure model for birds exposed to granular pesticides. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

**Moore, D.R.J.**, L.B. Best, L.W. Brewer, D.L. Fischer, A.T. Hall, I.D. Kelly, S.J. Klaine, T.S. Ramanarayanan and K.R. Solomon, 2006. Establishing "Bright Lines" in probabilistic risk assessments of pesticides and contaminated sites. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

Breton, R.L., R.P. Thompson, **D.R.J. Moore**, R.S. Teed, S. Mortensen and S.B. Wall. 2006. An endangered species assessment for wildlife potentially exposed to brodifacoum. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

Jiapizian, P., P.-Y. Caux, E. Sabo, M. Demers, **D.R.J. Moore**, R.S. Teed, R.L. Breton, R. Roshon and G. Stephenson. 2006. Derivation of Ideal Performance Standards for 10 pesticides in Canadian surface waters. 27th Annual Society of Environmental Toxicology and Chemistry Conference, Montreal, QC.

**Moore, D.R.J.** 2006. A probabilistic model for estimating exposure of birds to granular pesticides. Invited speaker to April 26 SETAC Laurentian Meeting, Ottawa, ON.

**Moore, D.R.J.**, R.S. Teed, R.L. Breton, R.P. Thompson, R. Willis, P.B. Jiapizian, P.-Y. Caux, M. Bauder and P. Bacchus, 2005. A methodology for derivation of Ideal Performance Standards for pesticides in Canada. 26th Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

Goldacker, S., J. Archbold, J. Shapiro, P.B. Jiapizian, P.-Y. Caux R.S. Teed and **D.R.J. Moore**. 2005. Introducing a method to derive Achievable Performance Standards at the sub-watershed level for pesticides. 26th Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

**Moore, D.R.J.**, R.L. Breton, R.P. Thompson, R.S. Teed and S.C Svirsky. 2005. Risk to birds and mammals in the PCB-contaminated watershed of the Housatonic River, Massachusetts. Third International Conference on Remediation of Contaminated Sediments, New Orleans, LA.

**Moore, D.R.J.** 2004. A probabilistic site-specific approach for developing Ambient Water Quality Criteria for mercury. WEFTEC Workshop: Looking to the Future by Reevaluating Water Quality Criteria Now, New Orleans, LA.

**Moore, D.R.J.** 2004. Estimating and presenting uncertainties in empirical data and modeling results. Addressing and Managing Uncertainty at Contaminated Sites – USACE/USEPA/SMWG Joint Sediment Conference, St. Louis, MO.

Lortie, J.P., **Moore, D.R.J.** and Svirsky, S.C. 2003. Ecological risk assessment overview: PCB contamination in the Housatonic River, Pittsfield, Lenox, and Lee, MA. 10th Annual Conference of the Wildlife Society, Burlington, VT.

Pawlisz, A.V., **D.R.J. Moore,** R.P. Thompson, R.L. Breton, R.S. Teed and D.B. MacDonald. 2003. A probabilistic risk assessment for sediment-probing, carnivorous-wading, and piscivorous birds exposed to tPCBs, mercury, TEQ, lead and selenium in the Calcasieu Estuary, LA. 24th Annual Society of Environmental Toxicology and Chemistry Conference, Austin, TX.

Teed, R.S., **D.R.J. Moore,** D.L. MacDonald, D.B. MacDonald, R.L. Breton, A.V. Pawlisz and R.P. Thompson. 2003. Assessing the risks to carnivorous fish in the Calcasieu Estuary, Louisiana: A probabilistic risk assessment. 24th Annual Society of Environmental Toxicology and Chemistry Conference, Austin, TX.

**Moore, D.R.J.**, R.L. Breton, D.B. MacDonald, A.V. Pawlisz, R.S. Teed and R.P. Thompson. 2003. Assessing risks to wildlife in the Calcasieu Estuary, Louisiana: An overview of the probabilistic approach used. 24th Annual Society of Environmental Toxicology and Chemistry Conference, Austin, TX.



Breton, R.L., D.B. MacDonald, **D.R.J. Moore**, R.S. Teed, A.V. Pawlisz and R.P. Thompson. 2003. Assessing the risks to piscivorous and omnivorous mammals in the Calcasieu Estuary contaminated site, Louisiana: A probabilistic risk assessment. 24th Annual Society of Environmental Toxicology and Chemistry Conference, Austin, TX.

**Moore, D.R.J.**, S. Ferson, J.P. Lortie and C. Werner. 2002. Probabilistic risk assessment approach for threatened and endangered species exposed to PCBs along the Housatonic River. 23rd Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake, UT.

**Moore, D.R.J.**, R.S. Teed and M. Richardson. 2002. Derivation of an ambient water quality criterion for mercury: Taking account of site-specific conditions. 23rd Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake, UT.

**Moore, D.R.J.** 2002. SETAC Pellston workshop on uncertainty analysis: Wildlife exposure assessment case study. 23rd Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake, UT.

Pawlisz, A.V., J. Steevens, M. Reiss and **D.R.J. Moore**. 2002. Development of tissue residue benchmarks for estimating risk associated with contaminated sediments. 23rd Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake, UT.

Teed, R.S., Thompson, R.P., **Moore, D.R.J.** and Tillitt, D. 2002. Analytical co-elution and the development of toxic equivalency factors (TEF). 22rd Annual Society of Environmental Toxicology and Chemistry Conference, Salt Lake, UT.

Teed, R.S., **D.R.J. Moore**, G.M. Richardson, A.V. Pawlisz, H.E. Allen, S. Thakali, J. Little, G. Holdsworth and R.P. Thompson. 2002. Assessment of existing methods and data development for revising water quality criteria for protection of aquatic life and wildlife for mercury. WEFTEC 2002 Conference, Chicago, IL.

**Moore, D.R.J.,** S. Svirsky, T. DeLong, R. Dexter, S. Ferson and J. Lortie. 2001. Ecological risk assessment approach for the Housatonic River. 22nd Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

Svirsky, S., R., Beach, J. Lortie, **D.R.J. Moore**, C. Wallen and J. Walsh. 2001. Assessing risk, fate, transport and bioaccumulation of PCBs in the Housatonic River. 22nd Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

Warren-Hicks, W.A., M. Santoro, D. Bacon, B.R. Parkhurst and **D.R.J. Moore**. 2001. Ecological risk assessment of PFOS. 22nd Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

Cureton, P.M., A. Atkinson, M. Bonnell, R.S. Teed and **D.R.J. Moore**. 2001. Proposed framework for screening level ecological risk assessments of substances in Canada. 22nd Annual Society of Environmental Toxicology and Chemistry Conference, Baltimore, MD.

**Moore, D.R.J.** 2001. Introduction to probabilistic methods. EUPRA European Workshop on Probabilistic Risk Assessment for Environmental Impacts of Pesticides, Leeuwenhorst, The Netherlands.

**Moore, D.R.J.**, A.V. Pawlisz, A.D.M. Hart and W.A. Warren-Hicks. 2001. Probabilistic techniques to determine risk to birds exposed to chlorpyrifos in apple orchards. EUPRA European Workshop on Probabilistic Risk Assessment for Environmental Impacts of Pesticides, Leeuwenhorst, The Netherlands.

Hart A., **D.R.J. Moore**, W.A. Warren-Hicks, A.V. Pawlisz, and R.S. Teed. 2001. Simple probabilistic techniques to determine risk to birds exposed to chlorpyrifos in apple orchards. 11th Annual Meeting of Society of Environmental Toxicology and Chemistry Europe Conference, Madrid, Spain.

**Moore, D.R.J.**, A. Hart, W.A. Warren-Hicks, A.V. Pawlisz and R.S. Teed. 2001. Application of second order Monte Carlo analysis and probability bounds analysis to estimate risk to birds exposed to chlorpyrifos in apple orchards. 11th Annual Meeting of Society of Environmental Toxicology and Chemistry Europe Conference, Madrid, Spain.

**Moore, D.R.J.** 2001. New developments in quantifying uncertainty in ecological risk assessment. English Nature Workshop: Risk Assessment, Peterborough, UK.

**Moore, D.R.J.** 2000. Use of hierarchical Monte Carlo methods to propagate uncertainties in ecological risk assessments of pesticides. 21st Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.

Ferson, S. and **D.R.J. Moore**. 2000. Bounding uncertainty analyses: Marrying probability and worst case arguments in risk assessments. 21st Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.



**Moore, D.R.J.**, A.V. Pawlisz and R.S. Teed. 2000. Utility of the spatially-explicit PATCH model for estimating risks of anthropogenic stressors to wildlife. 21st Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.

Pasternak, J.P., **D.R.J. Moore** and R.S. Teed. 2000. A probabilistic risk assessment for aquatic biota exposed to inorganic chloramines in Canada. 21st Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.

Karalis, E., D.J. Porter, M.A. Bonnell, **D.R.J. Moore,** A.J. Atkinson and R.S. Teed. 2000. A framework for the ecological risk assessment of new substances in Canada. 21st Annual Society of Environmental Toxicology and Chemistry Conference, Nashville, TN.

Karalis, E., D.J. Porter, M.A. Bonnell, **D.R.J. Moore** and A.J. Atkinson. 2000. A framework for the ecological risk assessment of new substances in Canada. 27th Annual Aquatic Toxicity Workshop, St. John's, NL.

**Moore, D.R.J.** and W.J Warren-Hicks. 2000. New and not so new statistical methods for use in ecological risk assessment. 10th Annual Meeting of Society of Environmental Toxicology and Chemistry Europe Conference, Brighton, U.K.

Sutcliffe, R., R.L. Breton, D. MacDonald, **D.R.J. Moore**, J.D. Walker, M. Bonnell, and R Purdy. 2000. Results of an international QSAR workshop on estimating persistence, bioaccumulation and ecotoxicity of substances. 10th Annual Meeting of Society of Environmental Toxicology and Chemistry Europe Conference, Brighton, U.K.

**Moore, D.R.J.**, R.L. Breton, D. MacDonald, P. Harris, R. Chenier, R. Sutcliffe, J. Sanderson, S. Bradbury, C. Russom and P.C. Jurs. 1999. Ability of ECOSAR, TOPKAT, Neural Networks and ASTER to predict toxicity of chemicals to aquatic biota. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Warren-Hicks, W.J. and **D.R.J. Moore**. 1999. Beyond Monte Carlo. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Warren-Hicks, W.J. B.R. Parkhurst, **D.R.J. Moore**, R.B. Berger, J.J. Pletl, D.L. Denton and R.B. Baird. 1999. Whole effluent toxicity test variability: A variance components analysis. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

**Moore, D.R.J.**, R.S. Teed, W.J. Warren-Hicks, B.R. Parkhurst, R.B. Berger, J.J. Pletl, D.L. Denton and R.B. Baird. 1999. Intra- and Inter-treatment variance in reference toxicant tests. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Parkhurst, B.R., W.J. Warren-Hicks, **D.R.J. Moore**, R.B. Berger, J.J. Pletl, D.L. Denton, and R.B. Baird. 1999. WET test variability: Demonstration of effects on compliance with WET. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Teed, R.S., S.S. Qian, W.J. Warren-Hicks, **D.R.J. Moore**, F.J. Keating and L.S. Steeves. 1999. Examination of the spatial relationship and interaction of selected environmental parameters to mercury concentrations in fish tissue in the north-eastern United States. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Jensen, F.A., G.R. Craig, **D.R.J. Moore** and M.B. Constable. 1999. The risks of ammonia to aquatic biota in Canada: Results of a priority substances assessment. 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

Parkhurst, B.R., **D.R.J. Moore** and J. Kennedy. 1999. How well do EPA's water quality criteria for ammonia predict effects to aquatic communities? 20th Annual Society of Environmental Toxicology and Chemistry Conference, Philadelphia, PA.

**Moore, D.R.J.** 1998. Ecological risk assessment. 19th Annual Society of Environmental Toxicology and Chemistry Conference. Charlotte. NC.

**Moore, D.R.J.** and P.Y. Caux. 1998. Hockey stick and Generalized Linear Models (GLiMs): How useful are they for estimating thresholds? 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.

**Moore, D.R.J.** 1998. Ethics in ecological risk assessment. 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.



**Moore, D.R.J.**, R.S. Teed, B.E. Sample, G.W. Suter and B.R. Parkhurst. 1998. A probabilistic risk assessment of the effects of methylmercury and PCBs on mink and kingfishers along East Fork Poplar Creek, Oak Ridge, Tennessee. 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.

**Moore, D.R.J.**, R.S. Teed, B.E. Sample, G.W. Suter and B.R. Parkhurst. 1998. Risk-based decision making: The East Fork Poplar Creek case study. 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.

Keating, F.J., P.A. Cocca, R.S. Teed, L. Steeves and **D.R.J. Moore**. 1998. Comparison of air deposition of mercury with concentrations in fish. 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.

deFur, P., S. Ferenc, M. Dobbs, C. Grue, S. Marcy, **D.R.J. Moore**, R. Rolland and R. Wentsel. 1998. Risk characterization in ecological assessments for multiple stressors. 19th Annual Society of Environmental Toxicology and Chemistry Conference, Charlotte, NC.

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